

# CURRICULUM VITAE

## Kyle Robert Stewart

### CONTACT INFORMATION

Jet Propulsion Laboratory  
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*Citizenship:* United States

### RESEARCH INTERESTS

Theoretical Cosmology; Galaxy Formation & Evolution; Dark Matter; Cosmological Simulations; Galaxy Simulations; Galaxy Mergers

### EDUCATION

#### Doctor of Philosophy in Physics

University of California, Irvine

**2009**

*Irvine, California*

#### Master of Science in Physics

University of California, Irvine

**2006**

*Irvine, California*

#### Bachelor of Science in Astrophysics

University of California, Los Angeles

**2004**

*Los Angeles, California*

### RESEARCH EXPERIENCE

#### NASA Postdoctoral Program (NPP) Fellow

Jet Propulsion Laboratory

NPP Advisor: Leonidas Moustakas, Ph.D.

**2010–present**

*Pasadena, California*

#### Graduate Student Researcher

University of California, Irvine

PI: James Bullock, Ph.D.

**2005–2010**

*Irvine, California*

#### Undergraduate Research Assistant

University of California, Los Angeles

PI: Matt Malkan, Ph.D.

**2003–2004**

*Los Angeles, California*

### TECHNICAL SKILLS

#### Operating Systems:

Proficient in: Windows, Linux, Mac OS X

#### Programming & Software:

Proficient in: IDL, TIPSy

Familiar with: C++, Java, Mathematica, PKDGRAV, GASOLINE

## TEACHING EXPERIENCE

### Teaching Assistant: Introduction to Astronomy

University of California, Irvine: Course 20A

3 discussion sections, grading, office hours

Spring 2006

Irvine, California

### Teaching Assistant: Cosmology

University of California, Irvine: Course 20B

4 discussion sections, grading, office hours

Winter 2006

Irvine, California

### Teaching Assistant: Classical Physics

University of California, Irvine: Courses 7B, 7LB

2 discussion sections, grading, office hours

3 tutorial labs, office hours, tutorial center

Spring 2005

Irvine, California

### Teaching Assistant: Basic Physics Lab II

University of California, Irvine: Course 3LB

3 experimental laboratory sections, grading, office hours

Winter 2005

Irvine, California

### TA: Fundamentals of Experimental Physics

University of California, Irvine: Course 52A

3 experimental laboratory sections, grading, office hours

Fall 2004

Irvine, California

## OUTREACH

### University of California, Irvine

Participated in presentations to local elementary schools

2008

## SELECTED HONORS AND AWARDS

### NASA Postdoctoral Program (NPP) Fellowship

2009

## PUBLICATIONS AND PRE-PRINTS

*Mg II Absorption Systems in a Cosmological Context* **K.R. Stewart**, T. Kaufmann, J. Bullock, E. Barton, J. Diemand, L. Mayer, P. Madau, J. Wadsley, A. Maller (tentative title and author list), **in prep.**

*Stealth Galaxies in the Halo of the Milky Way* J.S. Bullock, **K.R. Stewart**, M. Kaplinghat, E.J. Tollerud, ApJ submitted, ArXiv:0912.1873, **2009**

*Mergers and Bulge Formation in Lambda-CDM: Which Mergers Matter?* P. Hopkins, K. Bundy, D. Croton, L. Hernquist, D. Keres, S. Kochfar, **K.R. Stewart**, A. Wetzel, and J. Younger, MNRAS submitted, **2009**

*Invisible Major Mergers: Why the Definition of a Galaxy “Merger Ratio” Matters* **K.R. Stewart**, ArXiv:0902.2214 [astro-ph], to appear in proceedings of “Galaxy Evolution: Emerging Insights and Future Challenges,” **2009**

*Gas-rich Mergers in LCDM: Disk Survivability and the Baryonic Assembly of Galaxies* **K.R. Stewart**, J.S. Bullock, R.H. Wechsler, and A.H. Maller, ApJ, 702, 307, **2009**

*The Effects of Gas on Morphological Transformation in Mergers: Implications for Bulge and Disk Demographics* P.F. Hopkins, R.S. Somerville, T.J. Cox, L. Hernquist, S. Jogee, D. Keres, C.P. Ma, B. Robertson, and **K.R. Stewart**, MNRAS, 397, 802, **2009**

*Galaxy Mergers and Dark Matter Halo Mergers in LCDM: Mass, Redshift, and Mass-Ratio Dependence* **K.R. Stewart**, J.S. Bullock, E.J. Barton, R.H. Wechsler, ApJ, 702, 1005, **2009**

*Mergers and Disk Survival in LCDM* J.S. Bullock, **K.R. Stewart**, and C.W. Purcell, Invited Contribution, IAU Symposium 254, **2008**

*The Assembly of Galaxy Clusters* J.C. Berrier, **K.R. Stewart**, C.W. Purcell, E.J. Barton, and R.H. Wechsler, ApJ, 690, 1292, **2008**

*A Candidate Brightest Proto-Cluster Galaxy at  $z = 3.03$*  J. Cooke, E.J. Barton, J.S. Bullock, **K.R. Stewart**, and A.M. Wolfe, ApJ, 681, 57, **2008**

*Merger Histories of Galaxy Halos and Implications for Disk Survival* **K.R. Stewart**, J.S. Bullock, R.H. Wechsler, A.H. Maller, and A.R. Zentner, ApJ, 653, 597, **2008**

## SEMINARS AND COLLOQUIA

*Merger Histories of LCDM Galaxies: Disk Survivability and the Deposition of Cold Gas via Mergers*, Kavli Institute for Cosmological Physics, Open Group Seminar, The University of Chicago. Nov. 2008.

*Merger Histories of LCDM Galaxies: Disk Survivability and the Deposition of Cold Gas via Mergers*, Center for Cosmology and AstroParticle Physics Seminar, the Ohio State University, Oct. 2008.

*Merger Histories of LCDM Galaxies: Disk Survivability and the Deposition of Cold Gas via Mergers*, Berkeley Cosmology Group Seminar, University of California, Berkeley, Sept. 2008.

*Merger Histories of LCDM Galaxies: Disk Survivability and the Deposition of Cold Gas via Mergers*, KIPAC tea talk, Kavli Institute for Particle Astrophysics and Cosmology, Stanford University, Aug. 2008.

## CONTRIBUTED CONFERENCE TALKS (OR POSTERS)

*Cloud Formation in a Cosmological Context and Implications for Absorption-Selected Galaxies*, Hunting for the Dark: the Hidden Side of Galaxy Formation, Malta, Oct. 2009 (Poster)

*Cool Halo Gas in a Cosmological Context*, Galaxy Formation Workshop, University of California, Santa Cruz, Aug. 2009.

*Merger Histories of LCDM Galaxies: Disk Survivability and the Deposition of Cold Gas via Mergers*, 213th AAS Meeting, Long Beach, CA, Jan. 2009.

*Merger Histories of LCDM Galaxies: Gas Fractions and Disk Survivability*, 8th Annual Theoretical Astrophysics in Southern California Meeting, University of California, Irvine, Oct. 2008.

*Galaxy Merger Fractions and Disk Survivability*, Back to the Galaxy II (Scientific Highlights Section), University of California, Santa Barbara, Oct. 2008.

*Merger Histories of DM Halos and the Baryonic Assembly of Galaxies*, Galaxy Formation Workshop, University of California, Santa Cruz, Aug. 2008.

*Merger Histories of Galaxy Halos, and Implications for Disk Survival*, Galactic Structure and Structure of Galaxies Workshop, Ensenada, Baja California, Mexico, Mar. 2008 (Poster)

*Merger Histories of Galaxy-sized Dark Matter Halos, and Implications for Disk Survival*, 7th Annual Theoretical Astrophysics in Southern California Meeting, University of California, Los Angeles, Nov. 2007

*Merger Histories of Galaxy-sized Dark Matter Halos*, Galaxy Formation Workshop, University of California, Santa Cruz, Aug. 2007